(6) Calculate the density of oil at the wellhead, $\rho_{WH} \left(\frac{lbm}{cu\,ft}\right)$, using the following equation with the value of the oil API gravity, $\gamma_o$, at the well site:

$$\rho_{WH} \left(\frac{lbm}{cu\,ft}\right) = \frac{141.5}{\gamma_o + 131.5} \times 62.4$$

(7) Calculate the density of oil at bottom hole conditions, $\rho_{BH} \left(\frac{lbm}{cu\,ft}\right)$, using the following equation with: the dissolved GOR, Rs (scf/STBO), calculated in paragraph (b)(4) of this section; the oil formation volume factor, Bo (bbl/STBO), calculated in paragraph (b)(5) of this section; the oil density at the wellhead, $\rho_{WH} \left(\frac{lbm}{cu\,ft}\right)$, calculated in paragraph (b)(6) of this section; and the dissolved gas gravity, $\gamma_{gd} = 0.77$:

$$\rho_{BH} \left(\frac{lbm}{cu\,ft}\right) = \frac{\rho_{WH} + 0.0136 \times Rs \times \gamma_{gd}}{Bo}$$